K. V. Krombein

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Hemileuca maia in Flight (Lepid.: Saturniidae).

By ALEX K. WYATT, Chicago, Illinois.

An outstanding incident in a collecting experience covering over forty years of active work, was recalled in going over some notes of former years. Sunday, October 16, 1921, was one of those wonderful autumn days that make one feel good to be alive and able to enjoy the beauty and carefree spirit of the great out-doors. Temperature recorded for the day ranged from fifty-six degrees at 9:00 A. M. to sixty-five at noon and seventy-three at 5:00 P. M. and it was warmer in the sunshine. To take advantage of the day, I took the family on a scouting trip for new collecting grounds, to the south and southeast of the city. Friend Emil Beer joined us. We drove south some thirty miles to Lincoln Highway, then east through Dyer, Indiana, to Schererville, Indiana, which we reached about noon. Here we turned north, planning to stop at our old stamping grounds at Hessville, Indiana, to investigate collecting possibilities in the vicinity.

Just out of Schererville, we ran into them; *Hemileuca maia* by the hundreds, flying across the fields in every direction as far as one could see. We stopped by the roadside at once, unlimbered the nets and went to work. After capturing a few specimens, I surrendered my net to the older daughter, age eleven, and was kept busy caring for the moths as she and her younger sister, age six, brought them to me. The younger girl picked the moths from the tall grasses and shrubbery with her fingers and as may be imagined, these were mostly females. I can still visualize the youngster, coming toward me with a moth in her fingers and five or six males following, hovering closely around her hand and forearm. For a period of about two hours from noon until two o'clock the moths were flying

in great numbers. They flew high as a rule, thirty to fifty feet up and seemed to have business in the next county, but in the field where we were, many flew low enough to be captured, doubtless attracted by the females just emerging there. It was extremely interesting to see how madly the males sought the females; they literally fought each other in their eagerness. In one instance, we saw a tumbling ball of eight or ten moths with a dozen or more on the wing nearby, and upon investigation, found two females in the center of the ball. Copulation is effected almost instantaneously if there is no interference, whereupon the attraction for other males soon ceases. Looking across the field it was easy to spot the females by observing the males hovering about them. After two o'clock, flight practically ceased, the moths became scattered and many males were found at rest.

There was no great variation among over one hundred and forty specimens which we captured on that occasion, except in the width of the white band, which was narrow and almost entirely absent in some specimens and fully a quarter-inch wide in others. I took one unusual specimen, a male, in which the fringe of the primaries was white instead of the customary black color. We also found several egg masses, banded around twigs of willow. Records from eastern states usually give oak as the food plant of *Hemileuca maia*. Here, we never find the larva on oak, though it is plentiful in the vicinity, and willow is definitely the preferred food plant.

Never before, nor since, have we seen such a flight and the experience will remain vivid in our memories for many and many a day, and the nice little series of *Hemileuca maia* in our collections, will serve to refresh that memory.

An Annotated List of The Butterflies of Nebraska (Lepid.: Rhopalocera).

By R. A. LEUSSLER, Omaha, Nebraska.

(Continued from page 80.)

35. D. BERENICE (Cram.) race strigosa (Bates). Rare. One each from the following localities: Roca, May 10, 1911 (Leussler); McCook, June 20, 1913; Lincoln, August 10, 1913 (R. W. Dawson); West Point (no date); Mitchell August 19, 1916 (C. E. Mickel).

36. ENODIA PORTLANDIA (Fabr.). Not rare in the state but rather local. Colonies usually found at the edge of timber near a stream. Two broods, first in June, second in August. Has been taken as far west as Oconto.

37. MEGISTO CYMELA (Cram.). Common; single brooded, appearing late in June. Apparently found over the entire state. Specimens from Omaha, Lincoln, Rulo, Oxford and Harrison.

38. SATYRODES EURYDICE (Joh.). A few were taken by me in the canyons near Harrison, Sioux County on July 1, 1911. E. A. Dodge reported it as being quite common in the low lands near Fremont in the 80's.

S. EURYDICE race FUMOSUS Leussler. This dark giant race has thus far been found in but one locality, a spring-fed marsh near Omaha, where formerly it was abundant. Unfortunately, the marsh was drained and otherwise disturbed some years ago, since which time none of the butterflies have been found.

39. COENONYMPHA INORNATA Edw. Found so far only in the vicinity of lakes in the sand hill region of Cherry County. A series of 6 specimens collected there June 4 to 7, 1914, and 2 on June 10, 1929. These are race *benjamini* McDunnough.

40. C. OCHRACEA Edw. Taken abundantly near Harrison on numerous occasions in June. Has also been taken at Emmett in June, 1900, (Wolcott).

41. NEOMINOIS RIDINGSI (Edw.). Fairly swarmed on the high plains near Harrison, June 16 to 30, 1911. It is clearly double brooded, for fresh specimens in abundance were found

in the same locality on August 17 of the same year. It is quite variable, some specimens, especially of the later brood, resembling *dionysus* Scud. in size, and in having the eye spots larger, ground color at base lighter, and sharper dentation of the medium band of the secondaries. In June, 1933, a number were taken at Kimball.

42. CERCYONIS ALOPE race OLYMPUS (Edw.). Common; very variable; the form most commonly found in the state is Edwards' *olympus*, but some specimens found in and around Omaha are very similar to eastern *nephele*. Others have the yellow band so well developed as to approach somewhat closely typical *alope*, and there are intergrades of every degree. I have seen no typical *alope* in the state but it would not be surprising if it were found in the southeastern part. It is recorded from Nebraska City in a list published by Albert Cassel in 1894, and also included in H. G. Barber's list.

43. C. MEADII (Edw.). This handsome species is common at Harrison and Harrisburg throughout August. No doubt its habitat extends also to other localities, though at present no further records are at hand.

44. C. OETUS (Bdv.). Specimens collected in Squaw Canyon, July 20, 1892, and along Prairie Dog Creek July 2, 1901, are in the University collection. Both localities are in Sioux County near the town of Harrison.

45. OENEIS UHLERI (Reak.) race VARUNA (Edw.). Common on the high plains of Sioux County in May and early June. Extremely variable in the depth of ground color, number of ocelli and distinctness of band on under side of secondaries. Some specimens, on characters, would have to be referred to typical *uhleri*.

46. COLAENIS JULIA (Fabr.). Included in this list on the strength of a single specimen taken by Mrs. W. B. Graham in her garden at Omaha in September, 1908, and now in the writer's collection. The specimen is somewhat rubbed but the colors are fresh, and it is not tattered as if it had traveled a long distance. This suggests the possibility of its introduction

as larva or chrysalis. The dark band on forewing, extending from costa to outer margin, is complete and the apex of this wing also is well marked with fuscous. It apparently does not belong to the race *nudeola* Stichel.

47. DIONE VANILLAE (L.). Rare. A number of larvae (60 or 70) found feeding on passion vine at Omaha by F. H. Marshall, and some of them reared to maturity. A nice fresh individual observed at Lincoln, July 28, 1912 (R. W. Dawson), One specimen collected at Omaha, July 5, 1924; another October 15, 1928; and one at Plattsmouth, July 23, 1936 (Leussler).

48. EUPTOIETA CLAUDIA (Cram.). Common everywhere in the state; on the wing in every month from May to October, but fresh specimens are most numerous in July and September, indicating at least two broods.

49. ARGYNNIS IDALIA (Dru.). Common, especially in the eastern part of the state. Can be found from the middle of June till the middle of September, although there is but one brood.

50. A. CYBELE (Fabr.). The common Argynnis in the eastern part, but extending over the entire state; single brooded, its season being about the same as the foregoing. Specimens from the western part of the state are smaller, and have less heavy shading in the basal area.

51. A. APHRODITE (Fabr.). The typical form is rare, but has been taken at Omaha (Marshall), West Point (Univ. coll.), Oconto (Leussler), Bazile Mills (Shoemaker). Towards the west it grades into race *cypris*.

A. APHRODITE race ALCESTIS (Edw.). Rare, excepting in the northeastern part of the state. Two specimens from Omaha (Leussler), 4 from Lincoln, and a series from Bazile Mills (Shoemaker).

A. APHRODITE race CYPRIS (Edw.). This small red race is rather common in the canyons of Sioux County, long series having been taken there at various times. Like most Argynnids it is variable, and intergrades towards typical *aphrodite* are not uncommon.

52. A. HESPERIS (Edw.). Rare. There are in the University collection 4 specimens taken in Sioux County by Merritt Cary in July, 1901.

53. A. NEVADENSIS Edw. race MEADII (Edw.). Rare. A few fresh specimens were taken in Monroe and Warbonnet canyons, Sioux County in June, 1911. Other specimens in the University collection, from the same locality bear date labels July 1892.

54. A. EDWARDSII (Reak.). This was the commonest Argynnid in Sioux County in June, 1911, and altogether more than 50 specimens were taken, (Leussler). Others were taken at Mitchell, June 26, 1913 (Gates).

55. A. PLATINA (Skin.). A few specimens were taken in Sioux County June 27, 1911; also some in earlier years.

56. A. HALCYONE (Edw.). Taken in fair numbers in June, 1911. Abundant in the same locality in July, 1917, on alfalfa. Variable in the depth of ground color of basal area on under side of secondaries.

57. BRENTHIS MYRINA (Cram.). Found in many parts of the state in moist meadows. In the eastern part of the state there is found a race very considerably larger than those from other sections, measuring in the case of males 20 to 21 mm. from center of thorax to apex of wing, and 30 mm. in the case of females. To this race Dr. Holland has given the name *nebraskensis*. A male is figured in the revised Butterfly Book.

58. B. BELLONA (Fabr.). Apparently found only in the northeastern part of the state where it is not common. Three specimens were taken at Crystal Lake near Dakota City, May 14, 1910, (A. W. Lindsey), and Dodge reported taking a few specimens around orchards in Dodge County.

59. EUPHYDRYAS BERNADETTA (Leussler). Very abundant along the canyon rims in Sioux County in late May and early June. Easily captured when feeding on flowers. It is a race of *anicia* and is probably the most easterly representative of that species.

60. MELITAEA ACASTUS (Edw.). Specimens have been taken

near Harrison, Sioux County, but it apparently is rare, for I have seen but 2 specimens from there, 1 taken July 21, 1901, by Merritt Cary, and at present in my collection.

61. M. POLA (Bdv.). Far more common in Sioux County than the preceding species. I have taken many specimens there in June, 1911, 1917 and 1919. It, no doubt, inhabits other localities in western Nebraska.

62. PHYCIODES ISMERIA (Bdv. and Lec.). Found over the entire state, and at times very abundant; at least two broods, possibly three. Larvae feed on small wild sun-flower and are easily reared. The type, a beautiful melanic form, described by Cary and named *nigra* by him is in the University collection. It was collected in Sioux County, June 10, 1901.

63. P. NYCTEIS (Dbldy & Hew.). Common at Omaha and Lincoln. I have not found it very far west in the state. Two broods, June and August.

64. P. VESTA Edw. form AESTIVA (Edw.). A single specimen, Omaha, July 14, 1912.

65. P. GORGONE (Hbn.) A single male, Fremont, May 30, 1921.

P. GORGONE form HIEMALIS (Edw.). A fine fresh female, near Omaha, October 16, 1920.

66. P. THAROS (Dru.). Very common everywhere in the state. Middle of June till freezing weather. Subject to more or less variation.

P. THAROS form vern. MARCIA (Edw.). Common over the entire state, but less so than the summer form. May, and a few late in the fall.

67. P. BATESI (Reak.). This seems to be the common Phyciodes in the Sioux County canyons, where I have taken it in numbers, several years, in the month of June. Specimens match up well with specimens from Aylmer, Quebec, received from Dr. McDunnough.

68. P. PICTA (Edw.). Apparently rare in the state, only 2 having been taken of which I have actual knowledge; June 30, 1913 (L. M. Gates); Wauneta, June 21, 1933 (Leussler).

May be more abundant than we think, for on June 22, 1933, it was found in considerable numbers at Ft. Morgan, Colo., not more than 90 miles from the Nebraska line.

69. ANTHANASSA TEXANA (Edw.). Occasional. 1 specimen on each of the following dates: March 27, 1910 (F. H. Shoemaker); September 14, 1911; July 7, 1914; September 26, 1914; October 15, 1928; 4 specimens September 18, 1928; and 2 on September 22, 1928 (Leussler), all at Omaha. Apparently making an effort to establish itself.

70. CHLOSYNE LACINIA (Gey.) ADJUTRIX Scudder. One fresh specimen, Omaha, October 15, 1920, captured on flowers of marigold in a city garden. Possibly introduced as larva or chrysalis.

71. POLYGONIA INTERROGATIONIS (Fabr.). Common; extends over the entire state but is most abundant in the eastern part.

P. INTERROGATIONIS form FABRICII (Lint.). Most of the individuals of the fall brood belong to this form. As a rule, more abundant than the summer brood.

72. P. COMMA (Harris). Common; September till freezing weather, when it hibernates and flies again in the spring. Specimens from Omaha, Lincoln, Roca, Cedar Bluffs.

P. COMMA form DRYAS (Edw.). Not nearly as common as the preceding. June and July. Specimens from Omaha and Lincoln.

73. P. SATYRUS (Edw.). Taken only in the canyon region of Sioux County as far as known. Several were taken there in Sow Belly Canyon in June, 1911.

74. P. ZEPHYRUS (Edw.). This species also has been recorded only from the canyons in Sioux County, where it was quite abundant in the latter part of June, 1911.

75. P. PROGNE (Cram.). Although I have taken this species only in the canyons of Sioux County, where it was common in late June, 1911, it has been recorded by W. L. Carpenter from Ft. Niobrara, at Valentine, and from Nemaha County by W. E. Taylor, according to Barber's List.

(To be continued.)

Ichneumon Hibernation in The Northeastern United States. (Hymenoptera, Ichneumonidae).

By Henry K. Townes, Jr., Dept. of Zoology,
Syracuse University.

The genus *Ichneumon* (in the broad sense) is represented in the Northeast by over two hundred species. They are rather large ichneumonids with a short ovipositor and an abdomen that is not compressed. The genus is also known in this country under the name *Amblyteles*.

In November of 1935, Mr. R. H. McCauley, Jr., and one or two other students at Cornell University called my attention to the occurrence of large numbers of female *Ichneumon* in rotten logs in the valley of Six Mile Creek at Ithaca, N. Y. A few days later, two hours spent digging into rotten logs at the reported locality produced about ninety specimens representing six species. Since then searches in the vicinity of Ithaca, N. Y.; South Hadley, Mass. (M. C. Townes); Syracuse, N. Y. (H. K. and M. C. Townes); and Buena Vista, Pa. (R. H. McCauley, Jr.); have resulted in the finding of several hundred specimens representing about twenty-five species of *Ichneumon*. Those species that have been determined are *Ichneumon ultimus, centrator, cincticornis, leucaniae, scelestus, funestus, canadensis, fuscifrons, heterocampae, devinctor, confirmatus, maius* (?), and *rubicundus*. The species are listed in order according to their abundance.

The species found hibernating are not closely related. Those reported above belong to the groups known as *Spilichneumon, Cratichneumon, Stenichneumon, Pseudamblyteles, Chasmodes* (?), *Barichneumon*, and *Ichneumon* in the strict sense. The last named group is represented by the largest number of species. The species that hibernate are those of which the males and females are on the wing in September and October. They mate in the fall, the males die, and the females hibernate and emerge in the spring to oviposit. In central New York, most of the females are probably in hibernating quarters about November 1 and remain there until about April 25, after which

they may be seen flying and crawling about on warm days. Not all of these species common in the fall have yet been found hibernating, neither have some of those that can be collected in early spring as adults (females). The first generation males of *Ichneumon* appear in the spring about May 25, and it is certain that females collected in early May passed the winter as adults.

Searching for hibernating *Ichneumon* is often an unproductive task, as the standards used in their choice of hibernating quarters are very exacting and difficult to learn. A great deal of time may be spent pulling off bark and digging into logs without finding a single specimen. When a specimen is found, however, there are usually many others in the same log or stump, and other suitable places in the neighborhood are likely to be productive. Wood of exactly the right moisture content and stage of decay seems to be necessary, but there are apparently other factors that influence the choice. Perhaps a gregarious instinct induces so many individuals to choose the same log.

The various species are found in different types of places. *Ichneumon centrator, scelestus, devinctor,* and sometimes *cincticornis* are found just beneath the loose bark of large logs in which there is a layer of soft debris between the bark and the sounder wood. These species occur singly, each in a small space that has been cleared out. *Ichneumon ultimus, leucaniae, funestus, canadensis,* and *heterocampae* are found in rotten logs and stumps in the empty tunnels of beetle larvae or carpenter ants, usually two to four inches from the surface and always in groups. The groups number from about three to twenty individuals and often contain several species. *I. cincticornis* occurs also in logs and stumps, but is usually nearer the surface than the above species and often singly. Two specimens of *I. confirmatus* were taken from a punky log covered with a heavy coat of moss and were rather near the surface. *I. fuscifrons* and *maius* (?) were also taken from rotten logs or stumps. Several specimens of *I. ultimus* were found by Mr. Victor Tiship deep down in grass tussocks and a single

specimen of *rubicundus* was collected from under a stone by Dr. Henry Diterich. The only other ichneumonid found hibernating was a female *Orthocentrus* in a stump.

It is noteworthy that the black species occur under bark, while the red and black ones (except *devinctor*) are found deeper in rotten logs. It seems, also, that those hibernating deeper in logs have, on the whole, a shorter and stouter build. The probable reason for this is that the stouter species (usually red and black) habitually crawl under leaves and other debris in search of hosts, while the more slender species do not have these semi-burrowing habits. With the approach of cold weather, it is natural that the species with the stronger inclination and better equipment for burrowing should push deeper into the decaying wood.

Seyrig, in an interesting paper on the hibernation of female ichneumonids in Europe, (Ann. Soc. ent. France. (1923) 1924 92: 354-362) reports the occurrence of sixty-two species found hibernating. Most of these belong to *Ichneumon* in the broad sense, but twenty are Phaeogenini, four Cryptinae, and one *Pimpla*. His rather extended observations agree with mine. He finds ichneumonids hibernating under moss and in grass tufts, as well as under bark, each type of locality protecting a different set of species. Probably after searches in a variety of places, a large number of our own ichneumonids of the subfamily Ichneumoninae will be found to hibernate as adults.

Coccidula suturalis synonymy. (Coleop.: Coccinelidae.)

By H. R. Dodge, Ohio State University.

In the summer of 1937 the writer collected a series of a *Coccidula* species by sweeping in a marshy swale at Itasca Park, Minnesota. The specimens agreed very well with Horn's description and figure of the western *occidentalis*. An attempt to discover their relationship to the eastern *suturalis* Weise revealed the following facts.

Weise (Ann. Ent. Soc. Belg. 39: 132) described *suturalis*

in March, 1895, considering it to be a variety of *lepida.*

Horn (Trans. Amer. Ent. Soc. 22: 114) described *occidentalis* from Wyoming and Vancouver in May, 1895.

Reitter, 1897, (Wien. Ent. Zeit. 16: 127) described *Coccidula suturalis* N. Sp. from Irkutsk, Siberia.

Weise, 1898, (Arch. Naturges. 64: 238) states that *occidentalis* is a synonym of *suturalis* Weise.

Casey, 1899, (Journ. New York Ent. Soc. 7: 163) states the synonymy upon the authority of Weise and records *suturalis* from Ohio.

Leng, 1920, (Catalogue of the Coleop. of America N. of Mexico) lists both *suturalis* and *occidentalis* as good species.

Korschefsky, 1931, (Coleop. Catalogus: Coccinellidae) considers *suturalis* Weise an aberration of *lepida,* and *suturalis* Reitter and *occidentalis* good species.

Specimens in the Wenzel collection at the Ohio State University, under the name *C. occidentalis,* are represented from New Jersey and Edmonton, Alberta. The eastern and western specimens are conspecific, and the Minnesota specimens are similar to them. This points to a continuous distribution of the species from Vancouver Island to New Jersey, and bears out Weise's statement of synonymy, which had been disregarded or overlooked by Leng and Korschefsky.

The correct name of the species in question is, therefore, *Coccidula suturalis* Weise, this name having priority over *C. occidentalis* Horn. *Coccidula suturalis* Reitter nec. Weise I shall designate as **Coccidula reitteri** new name.

In both of his articles Weise expresses the belief that *suturalis* is merely a variety of *lepida.* Frost, 1920, (Can. Ent. 52:231) records the species from Orono, Maine, and notes a color variation of the abdominal sternites towards the *lepida* type. However, a complete intergradation of coloration is not recorded. I favor retention of specific rank for *suturalis* upon this point, plus the facts that *suturalis* and *lepida* apparently have never been found in association, and *suturalis* has a much wider distribution.

Notes on Florida Odonata.

By E. M. Davis, Rollins College, Winter Park, Florida.

During the past four years (1934-1937) I have collected dragonflies at various places in the southern half of Florida and it has frequently happened that interesting species have been found.

On Merritt's Island, east of Titusville, and at the southern end of Mosquito Lagoon, one of the commonest dragonflies in the fall is *Macrodiplax balteata*. I do not know its status earlier in the year but in October and November it has been abundant. It is found in the brackish marsh area where *Erythrodiplax berenice* is also abundant. *Macrodiplax* is watchful and quick, perching on the tops of weeds and bushes, and sufficiently numerous so that a good number can be caught in a short time. I have found this same dragonfly in large numbers in April about 10 miles after leaving Royal Palm Park on the road to Flamingo, and it was abundant until within about 10 miles of the settlement, which is at the southern tip of the mainland of Florida. It is also found in April on the upper Keys.

Sympetrum corruptum occurs sparingly on Merritt's Island in the brackish marsh area; I have caught two and seen several others.

Brachymesia gravida is an abundant species around lakes or canals in many places in the southern half of Florida, where it is found during all the warmer months. I have found it wherever *Macrodiplax* occurs and in many other places as well; it is one of the most common dragonflies in southern Florida.

Lepthemis vesiculosa was found around some small pools on Lower Matecumbe Key in April, 1937. In the field it looks very much like a large *Erythemis simplicicollis*. They rested on rocks, grasses, or bushes, and while watchful were not fast or high fliers, and kept close to their small pools, in which the females were laying by dipping the abdomen quickly into the water. They were not easily frightened, even when we missed

them with the net, and should be rated easy to catch. While in a boat, following the water lanes through the small mangrove keys off of Upper Matecumbe Key, I passed close by two of these and they were so indifferent to us that only the absence of my net prevented their certain capture.

A great contrast to *L. vesiculosa* is the smaller and much more active *Orthemis ferruginea*. Pugnacious, alert, and fast, they keep close to the edges of large ponds, but at the small pools on the Keys flew anywhere over the water and not far above it. When old, the pruinosity of the males makes them a most striking and peculiar red-violet, but when young the abdomen is brilliant red. To see them racing over a small pool, fighting everything in their way, is a great sight for anyone who appreciates dragonflies, and for each one caught many are missed. The brown females laid their eggs with quick dips of the abdomen while the male stayed a foot or so above. It has often been suggested that in nature females are frequently dull-colored compared with males, because it affords them protection from predators. In the case of *Orthemis* on this occasion on the Keys, two of us collected around several pools for over an hour, and later (and too late!) it was discovered that while we had taken males and females of several species, we had caught *only* the brilliant males of *Orthemis!*

Tramea onusta was also on the Keys in April. Several pairs were seen and some singles and pairs were caught. They were free flying, going over land or water, and keeping well up in the air. I have caught one other of this species not far from the St. Johns River about 20 miles west of Melbourne. All species of this genus except *T. carolina* are apparently scarce in southern Florida.

Of the damselflies, *Enallagma durum* was found at some small shallow waterholes in open woods near the St. Johns River about 20 miles east of Winter Park. This was in March and April 1937, and they were common at that time and place.

At one of these water holes I found some pale-blue and black damselflies which could not be identified at sight and to my surprise turned out to be both males and females of *E. pollu-*

tum. This is one of the most abundant species in Florida, but all except these have always been the usual brown and black.

The scarcity of damselflies between Royal Palm Park and Cape Sable, and also on the Upper Keys, has been very noticeable. Except for a glimpse of one blue and black *Enallagma* I have seen nothing but *Ischnura ramburii* and these are uncommon.

A List of Dragonflies (Odonata) taken in Southern Alaska.

By CARSTEN AHRENS, The McKeesport High School, McKeesport, Pa.

For 41 days of last summer, July 1—August 10, 1937, the writer collected dragonflies in southern Alaska. It was his misfortune to visit this United States possession during the coldest and wettest summer that that territory has experienced in twenty years. The temperature never rose above 60° F. With the exception of three days, rain fell almost constantly throughout the trip. Collecting was frequently discouraging. For instance, during the five days spent at Ketchikan, the first Alaskan port of call on the way north from Seattle, rain rarely ceased to fall; only five specimens, stiffened with cold, were taken, and those were "picked" from the vegetation that grows jungle-like in that humid region.

A total of 426 specimens, representing 20 species were taken. 6 are included here for the first time in any list of Alaskan Odonata: *Aeschna interrupta lineata* Walker, *Sympetrum decisum* Hagen, *Leucorrhinia proxima* Calvert, *Leucorrhinia borealis* Hagen, *Lestes dryas* Kirby (*uncatus* Kirby), and *Agrion resolutum* Hagen (genus *Coenagrion* of Needham and Hayward).

Mrs. L. K. Gloyd of the University Museum of Ann Arbor, Michigan, checked the identifications. Her invaluable help has made possible the following list.

1. AESCHNA SITCHENSIS Hagen 1 ♂ 2 ♀. Juneau, 8/5-8/6 (1 ♂ 1 ♀; Matanuska Valley 7/19 (1 ♀). Found these specimens in boggy meadows.

2. AE. PALMATA Hagen 19 ♂ 5 ♀. Juneau, 7/11 (2 ♂), 8/5-8/6 (9 ♀ 4 ♀); Matanuska Valley 7/19 (2 ♂), 7/20 (6 ♂ 1 ♀). These insects were taken about lakes, especially Auk Lake, near Juneau.

3. AE. INTERRUPTA INTERRUPTA Walker 1 ♂, Ketchikan, 7/8, Picked this dragonfly while he was at rest on a gaudily painted totem pole in the city's park.

4. AE. INTERRUPTA LINEATA Walker 5 ♂ 11 ♀. Chitina, 7/28 (1 ♀); Matanuska Valley, 7/19/21, (5 ♂ 10 ♀). This aeschnid was flushed frequently as it rested on the new gravel roads in the Matanuska Valley.

5. AE. EREMITA Scudder 24 ♂ 5 ♀. Anchorage, 7/22 (1 ♀); Chitina, 7/27 (1 ♂); Gulkana, 7/27 (4 ♂ 2 ♀); Matanuska Valley, 7/19-7/20 (19 ♂ 2 ♀). Common about the edges of lakes which they patrolled with surprising regularity.

6. AE. JUNCEA Linn. 38 ♂ 11 ♀. Anchorage, 7/17 (1 ♂); Gulkana, 7/27 (7 ♂ 1 ♀); Juneau, 7/11 (7 ♂ 1 ♀), 8/5-8/6 (9 ♂ 4 ♀); Ketchikan, 7/8 (1 ♂); Matanuska Valley, 7/19-7/21 (8 ♂ 2 ♀); Seward, 7/16 (4 ♂ 2 ♀); Valdez, 7/24 (1 ♂ 1 ♀). The commonest Anisopteron collected. It was taken in the vicinity of every place visited and about habitats that differed greatly from each other. At Seward it was the only species observed. At Juneau the females were ovipositing in floating logs in an old gravel pit.

7. SOMATOCHLORA ALBICINCTA (Burm.) 7 ♂ 1 ♂. Anchorage, 7/22 (1 ♀); Juneau, 7/11 (1 ♂); Palmer, 7/20 (6 ♂). Easily captured for they slowly fly a few inches above the surface of the lake while they investigate every twist of the shore line.

8. S. SEMICIRCULARIS (Selys) 9 ♂ 1 ♀ Juneau, 7/11 (8 ♂ 1 ♀), 8/5 (1 ♂). The males were captured in a boggy meadow just below the Mendenhall Glacier. The females were ovipositing in puddles which the rain had left in an oats field.

9. CORDULIA SHURTLEFFI Scudder 13 ♂ 1 ♀. Anchorage, 7/22 (8 ♂); Gulkana, 7/27 (2 ♂); Juneau, 7/11 (1 ♂); Matanuska Valley, 7/21-7/29 (2 ♂ 1 ♀). This species was taken along clear streams, lakes, and over muskeg.

10. LIBELLULA QUADRIMACULATA Linn. 4 ♂, Juneau, 7/11. These males were taken over a gravel pit which is situated on the very edge of the milky glacier silt-filled Mendenhall River. The water in the pit was clear.

11. SYMPTERUM DECISUM Hagen 13 ♂ 7 ♀, Chitina, 7/28. Tenerals were emerging in large numbers at 10:30 A. M., in a densely reeded area on the edge of Willow Creek.

12. S. DANAE Sulzer 6 ♂ 5 ♀, Juneau, 8/5-8/6. Specimens were captured at low tide over the sedge flats near the ocean.

13. LEUCORRHINIA HUDSONICA Selys 6 ♂ 11 ♀. Chitina, 7/28 (1 ♀); Gulkana, 7/27 (1 ♀); Juneau, 7/11 (5 ♂ 6 ♂), Gold Cr. 7/12 (1 ♀); Ketchikan, (near Fawn L. & L. Ketchi-

kan) 7/5 (1 ♂ 2 ♀). All of the dragonflies of this species were collected on foliage near lakes with the exception of one female which was taken high in the mountains along swift Gold Creek, four miles from the ocean.

14. L. PROXIMA Calvert 5 ♂ 1 ♀, Anchorage, 7/22. These insects were taken at rest on the margin of a small lake three miles north of the town of Anchorage.

15. L. BOREALIS Hagen 1 ♂ 1 ♀. Anchorage, 7/17 (1 ♂); Gulkana, 7/27 (1 ♀). Mrs. L. K. Gloyd writes, "The 8th segment does not have the large red spot but nevertheless I believe it to be *borealis* and not *pectoralis*. Seg. 7 is proportionately longer and the vulvar lamina wider near the apex than in *pectoralis* ♀.

16. LESTES DISJUNCTUS Selys 45 ♂ 13 ♀. Anchorage, 7/23 (2 ♂), Taken in the rain by sweeping in a swampy tide flat. Gulkana, 7/27 (8 ♂ 1 ♀), Collected about a reedy lake along highway between Gulkana and Gakona. Juneau, 8/6 (3 ♂ 1 ♀), Found in boggy meadow just below Mendenhall Glacier. Matanuska Valley, 7/19 (2 ♂ 1 ♀ tenerals), 7/20 (30 ♂ 10 ♀), Drove out many from shelter in the rain-drenched weeds of a railroad embankment above a stagnant ditch.

17. LESTES DRYAS Kirby (*uncatus* Kirby) 13 ♂ 10 ♀, Chitina, 7/28. Numerous in swamps near roadside where many pairs were flying in tandem.

18. AGRION RESOLUTUM Hagen (genus *Coenagrion* of Needham and Hayward's Handbook) 39 ♂ 7 ♀. Anchorage, 7/17 (15 ♂ 3 ♀); Gulkana, 7/27 (7 ♂ 1 ♀); Matanuska Valley, 7/19-7/21 (17 ♂ 3 ♀). Found in reedy areas where fresh water was seeping into tidal flats and about small, shallow lakes.

19. ENALLAGMA BOREALE Selys 17 ♂ 10 ♀. Gulkana, 7/27 (6 ♂ 5 ♀); Juneau, 7/11 (2 ♀), 8/5-8/6 (4 ♂ 1 ♀); Juneau, Awk Lake, 7/11 (1 ♂); Matanuska Valley, 7/17-7/21 (6 ♂ 2 ♀).

20. E. CYATHIGERUM (Charp.) 38 ♂ 20 ♀. Juneau, 7/11 (6 ♂ 4 ♀), 8/6 (1 ♂ 1 ♀); Juneau, Awk Lake, 7/11 (11 ♂ 3 ♀); Matanuska Valley, 7/19-7/21 (20 ♂ 12 ♀). These Enallagmas were numerous about lakes and clear streams in the company of *boreale*.

A New Acmaeodera (Coleoptera: Buprestidae).

By Josef N. Knull, The Ohio State University, Columbus, Ohio.

Acamaeodera vulturei n. sp.

♀.—Size and form of *A. varipilis* Van.D., ventral surface, head and pronotum bronze with bluish cast, elytra dark blue, each elytron with four irregular transverse spots, one back of base, another in front of middle and two back of middle, posterior two more or less connected.

Head convex, a well marked carina on vertex; surface coarsely punctured, pubescence long; antennae serrate from the fifth joint, second and third joints of equal length, together shorter than scape, fourth joint longer than third, joints five to eleven decreasing in length.

Pronotum wider than long, widest in front of base, wider at base than at apex; sides broadly rounded in front, more acutely rounded posteriorly; anterior margin sinuate, median lobe broadly rounded; basal margin truncate; disk convex, a slight trace of median depression, a lateral depression on each side at base; surface coarsely punctured, punctures separated by much less than their own diameters in middle, reticulate at sides, pubescence long.

Elytra wide as widest part of pronotum, sides constricted back of base, broadly rounded posteriorly to rounded apices; margins serrate from middle; disk convex, umbone prominent; surface coarsely punctured, punctures of interspaces very fine, a recumbent hair arising from each fine puncture.

Abdomen beneath densely coarsely punctured, a short recumbent hair arising from each puncture; last ventral segment without subapical modification; front margin of prosternum straight, sides not reaching front angles.

Length 6.5 mm.; width 2 mm.

Holotype collected in Vulture Mountains near Wickenburg, Arizona, June 16, 1937, by D. J. and J. N. Knull; *paratype* labeled Elizabeth Lake, California, July 10, both in collection of writer.

Variations.—The female paratype has the markings of the elytra broken up into elongate yellow areas.

This species belongs to the Truncata group according to Fall* and would come near *A. vanduzeei* Van D. Dr. Van Dyke has kindly compared a specimen with his type and found the two forms to be different.

* H. C. Fall, Jour. N. Y. Ent. Soc., viii, pp. 1-37, 1899.

Egg-Laying Among the Argynnids. (Lepid.: Nymphalidae).

By Dr. Eugene Murray-Aaron, Field Museum, Chicago.

Nearly a half century ago, the late Dr. Henry Skinner and I published an Annotated List of the Butterflies of the Philadelphia District (Can. Ent. Vol. 27, p. 130 et seq.) in which we described several new varietal forms and also took occasion to reply to a characteristicly caustic critique that not long before had appeared in Scudder's Butterflies of the Eastern United States and Canada. In that, Mr. Scudder had written of the egg-laying vagaries of *Argynnis* (*Dryas*) *cybele* (Vol. 1, p. 560) as follows:

"The eggs are laïd upon the leaves and stalks of the food plant and not, as stated by H. Skinner, dropped from a distance upon the herbage. * * * The butterfly has been seen to deposit its eggs in the ordinary manner and such a wide departure from the common rule must be disbelieved in until it has been seen repeated. If Mr. Skinner had seen the act more than once he would have said so. * * * Still it would be less surprising in this butterfly than in some others, as the caterpillar leaves its food plant on hatching and does not seek it until spring."

I, knowing Mr. Scudder well, even intimately, valuing him as a kind friend and adviser, several times his guest as he was mine knew him also as a very positive critic and therefore favored a more positive reply than my good-humored fellow author insisted on our making. As a consequence we were contented to quote our friend George Howard Parker, then Instructor in Zoology at Harvard, now Professor Emeritus thereof, and my brother S. Frank Aaron, stating that we authors had observed the same action on the part of *myrina* and *bellona* and that I believed I had observed the same some years before (1875 to '79) in the Smoky Mountains of Tennessee, on the part of *diana*.

To this Mr. Scudder made no reply at the time and my notes of those years show that I wrote him regarding the matter, with further testimony, without result. At that time I stressed

the argument not unnaturally based on his own hint as to feeding habits of *cybele* larvae, as stated in his last sentence above quoted.

It was no surprise to me to get no reply as I had had a printed controversy with him regarding the food of *Lycaena* (*Everes*) *comyntas* some years earlier—sixty-one years ago, to be exact—regarding which my friend Wm. H. Edwards had come to my rescue, without acknowledgement from Mr. Scudder. He, one of the most tireless and usually among the most exact of all naturalists of his day, did not take kindly to being corrected, even by the then high priest of the Rhopalocera, my valued friend Edwards.

All of this comes back to mind now, while engaged in the never ending puzzles that the Argynnids afford, in taxonomic work on the Strecker Collection at the Field Museum. This continually drives me to my own card catalog, started in 1873 and still in active growth, in which I have just come across several records regarding this vagarious proceeding on the part of some Argynnids. From them I find that I have since twice observed *diana* thus behaving, have noted the same of *idalia*, here in our Skokie meadows north of us, and have such repeated notes of *cybele* and *bellona* as well.

What can our many western collectors tell us on this subject? Comstock, Gunder, Grinnell and others should be able to testify.

The First Occurrence of Sphinx franckii Neum. in Pennsylvania. (Lepid.: Sphingidae).

On July 12, 1938, my parents, Mr. and Mrs. George S. Worth, caught a perfect specimen of *Sphinx franckii* Neum. at a light in one of the rooms of their home at Wayne, Pennsylvania. The time was about ten-thirty in the evening. The next day they gave it to me, and I presented it to the Academy of Natural Sciences of Philadelphia. The identification was made at once by Mr. John W. Cadbury, 3rd, of the Academy's Department of Entomology. This species of moth is very rare throughout its range, and the present record, according to Mr. Cadbury, is the first instance of its capture in Pennsylvania.

C. Brooke Worth, Department of Zoology, Swarthmore College, Swarthmore, Pennsylvania.

An Outbreak of Synnoma lynosyrana Walsingham (Tortricidae, Lepidoptera).

On August 12, 1937, the writer inspected an outbreak of lepidopterous larvae feeding on rabbitbrush (*Chrysothammus* sp.) in Beaverhead County, Montana. The caterpillars, which were tying the foliage into compact clumps and producing a witches-broom effect, were found on a rangeland area 3-4 miles long and ½ mile wide. Ranchers in the affected area were concerned about the possible spread of the pest to economic crop plants.

Adults were reared and sent to C. F. W. Muesebeck, Division of Insect Identification, Bureau of Entomology and Plant Quarantine. Through the kindness of Mr. Muesebeck and Mr. C. Heinrich, the adults were determined as *Synnoma lynosyrana* Wlsm. The following distribution data were furnished by Mr. Heinrich:

"California: Sheep Rock (Siskiyou Co.), San Bernadino Co.
New Mexico: Springer, Koehler, Fort Wingate.
Colorado: Pike's Peak, (several specimens—no definite locality).
Arizona: Williams, Verde Valley, Douglas.
Montana: Jefferson Co., Beaverhead Co.
The type locality for the insect is the Mount Shasta region of California." (1879).

Specimens from the earlier Montana outbreak have been found (Jefferson Co., 1924). Larval specimens are deposited in the U. S. National Museum collection, and in the entomological collection of Montana State College, Bozeman, Montana.

Mr. Heinrich indicates *Chrysothamnus* as the only known food plant for this insect; the confirmation of this by the occurrence of an additional outbreak on the same host plant suggests that the tortricid may be restricted in its feeding to this rangeland shrub.

D. J. Pletsch, Montana State College, Bozeman, Montana.

An Old Joke about Bees.

The following appeared in the London *Times* of April 21, 1838:

Some time since a person in the neighbourhood of Keswick, having several hives of bees to dispose of, and being desirous to attract purchasers, caused a placard to be printed announcing the sale, with the following extraordinary headlines:—"Extensive sale of live stock, comprising not less than one hundred and forty thousand head, with an unlimited right of pasturage!"

This joke has survived for a hundred years. I first heard it in New Mexico, where it was quoted to me as original.—T. D. A. Cockerell.

Current Entomological Literature

COMPILED BY V. S. L. PATE, LAURA S. MACKEY and E. T. CRESSON, Jr.

Under the above head it is intended to note papers received at the Academy of Natural Sciences, of Philadelphia, pertaining to the Entomology of the Americas (North and South), including Arachnida and Myriopoda. Articles irrelevant to American entomology will not be noted; but contributions to anatomy, physiology and embryology of insects, however, whether relating to American or exotic species will be recorded.

This list gives references of the current or preceding year unless otherwise noted. All continued papers, with few exceptions, are recorded only at their first installment.

For records of Economic Literature, see the Experiment Station Record, Office of Experiment Stations, Washington. Also Review of Applied Entomology, Series A, London. For records of papers on Medical Entomology, see Review of Applied Entomology, Series B.

Note. References to papers containing new forms or names not so stated in titles are followed by (*); if containing keys are followed by (k); papers pertaining exclusively to neotropical species, and not so indicated in the title, have the symbol (S) at the end of the title of the paper.

The figures within brackets [ ] refer to the journal in which the paper appeared, as numbered in the list of Periodicals and Serials published in our January and June issues. This list may be secured from the publisher of Entomological News for 10c. The number of, or annual volume, and in some cases the part, heft, &c., the latter within ( ) follows; then the pagination follows the colon :

Papers published in the Entomological News are not listed.

GENERAL.—Bailey, S. F.—Bells in memory of W. E. Hinds. [55] 14:96. **Barber, G. W.**—A study of the elliptical golden rod gall caused by Gnorimoschema gallaesolidaginis. [6] 46: 155-178, ill. **Bonnell & Bruzas.**—A method of collecting Amphizoa (Coleo.). [55] 14:112. **Crosby, C. R.**—Obituary by S. C. Bishop. [Festschr. 60. Geburtst. Strand] 4: 561-562, ill. **Hatch, M. H.**—Theophrastus of Eresos as an economic entomologist. [6] 46: 223-227. **Jobling, B.**—The cardboard cell method for the mounting of insects and their parts. [107] A, 13: 55-57, ill. **Monte, O.**—Manual do Colecionador de Insetos. [Chacras e Quintaes, Suppl., Mar. 1938] 49 pp. **Pyenson, L.**—The problems of applied entomology in Pernambuco, Brazil. [105] 8: 237-254, ill. **Snodgrass, R. E.**—Evolution of the Annelida, Onychophora, and Arthropoda. [Smiths. Miscel. Coll.] 97, no. 6: 159 pp. **Warren, B. C. S.**—The International Code of Zoological Nomenclature. [9] 7: 133-139. **Wilson, George Ringo.**—Obituary by H. M. Armitage. **Wusthoff, W.**—Ueber die Praparation kleiner kafer. [2] 34: 62-66.

ANATOMY, PHYSIOLOGY, ETC.—Cooper, B.—The internal anatomy of Corioxenos antestiae (Strepsiptera). [107] A, 13: 31-54, ill. **Fraser, F. C.**—A note of the fallaciousness of the theory of pretracheation in the venation of Odonata. [107] A, 13: 60-70, ill. **Harukawa & Tokunaga.**—Studies on the life history & bionomics of Phyllotreta vittata (Coleo.). [Mem. Coll. Agr. Kyoto Imp. Univ.] No.

44 (Ent. Ser. 5); 1-48, ill. **James, H. C.**—The effect of the humidity of the environment on sex ratios from over-aged ova of Pseudococcus citri (Hemipt., Coccid.). [107] A, 13: 73-79. **Jannone, G.**—Aspetti bio-morfologici e somatometrici dei problema delle fasi nel Daciostaurus maroccanus in Italia e fuori, con particolare alla provincia Napoli (Orth. Acrid.). [Boll. R. Lab. Ent. Agr. Portici] 1: 261-329, ill. **Kaszab, Z.**—See under Coleoptera. **Otter, G. W.**—On the morphology of the larvae of three spp. of Cecidomyidae from knapweed (Centaurea) flowers. [36] 87: 39-68, ill. **Paoli, G.**—Osservazioni sulla morfologia dell' estremo addome della femmina dei Ditteri Bombiliidi. [Redia] 23: 1-4, ill. Richerche sulla morfologia e anatomica del capo delle larve dei Ditteri Bombiliidi. [Redia] 23: 5-16, ill. Osservazioni su alcune particolarita di struttura e funzione dell 'apparato genitale femminile dei Dociostaurus maroccanus (Orth: Acrid.). [Redia] 23: 17-26, ill. Studi sulle cavallette di foggia (Dociostaurus, Orth., Acrid.), e sui loro oofagi (Ditteri Bombiliidi e Coleotteri Meloidi) ed Acari ectofagi (Eritreidi e Trombidiidi). [Redia] 23: 27-202, ill. **Querci, O.**—Effets des radiations reflechies sur les insectes. [Lambillonea] 28: 105-107. **Russo, G.**—V. Contributo alla conoscenza dei Coleotteri Scolitidi. Fleotribo: Phleotribus scarabaeoides. [Boll. R. Lab. Ent. Agr. Portici] 1: 3-261, ill. **Usinger, R. L.**—Dorsal abdominal scent glands in nymphs of Lygaeidae. [55] 14:83. **Whelan, D. B.**—Blood pulsations in Euxoa detersa (Noctuid.) [103] 11:109. **Woodruff, L. C.**—Observation on roach reproduction (Orth: Blatt.). [103] 11: 94-96, ill.

ARACHNIDA AND MYRIOPODA.—Jacot, A. P.—More Box-mites of the Northeastern United States. [6] 46: 109-145, ill. (k*). **Kaston, B. J.**—See under Small Orders, etc. **Keifer, H. H.**—Eriophyid Studies (Acarina). [Bull. Dept. Agr., St. Calif.] 27: 181-206, ill. (*). **Paoli, G.**—See under Anatomy. **Pratt & Hatch.**—The food of the black widow spider on Whidby I., Wash. [6] 46: 191-193. **Snodgrass, R. E.**—See under General.

THE SMALLER ORDERS OF INSECTS.—Banks, N.—Two n. gen. of Myrmeleonidae. [10] 40: 125-129, ill. New Chrysopidae & spp. new to the U. S. (Neuroptera. [54] 70: 118-122. (k). **Da Costa Lima, A.**—Uma variedade de "Rhopalopsyllus bohlsi" (Siphonaptera: Pulicidae). [Rev. Med-Cirurg. Brasil] 45: no. 2, Aug. 1937 [3-6]. ill.

(*). Uma nova pulga do Mexico e nota sobre Hormopsyla (Siphonaptera: Ischnopsyllidae). [Rev. Med.-Cirurg. Brasil] 46: [3-9], 46: no. 2, Feb. 1938, [3-9], ill. (*). **Emerson, A. E.**—Termite nests—a study of the phylogeny of behaviour. [Ecol. Monogr.] 8: 274-284, ill. **Fraser, F. C.**—Additions to the family Amphipterygidae (Odonata) [107] B, 7:137-143, ill. **Hanson, J. F.**—Studies on the Plecoptera of North America, I. [19] 33: 79-83, ill. (k*). **Hood, J. D.**—New Thysanoptera from Florida & North Carolina. [105] 8: 348-420. **James, H. G.**—Notes on some arctic Collembola. [4] 70: 151-154, ill. **Kaston, B. J.**—Mantispidae parasitic on spider egg sacs. [6] 46: 147-151, ill. **Lestage, J. A.**—Contribution a l'etude des Ephemeropteres, XVI.—Recherches critiques sur le complexe ametropo-metretopodidien. [33] 78: 156-162, ill. **Ling, Shao-wen.**—A few new caddis flies in the collection of the California Academy of Sciences. [55] 14: 59-69. **McCauley & Flint.**—Outwitting the termites in Illinois. [Ill. Nat. Hist. Surv.] Circ. 30; 19 pp., ill. **Ross, H. H.**—Descriptions of new N. A. Trichoptera. [10] 40: 117-124, ill. **Silvestri, F.**—Primo contributo alla conoscenza dei Protura dei Brasile e di Costa Rica. [Livr. Jub. Prof. Travassos] 1938: pp. 441-445, ill. (*). Due novi generi deserticoli di Lepismatidae (Thysanura). [Boll. R. Lab. Ent. Agr. Portici] 1: 340-353, ill. Contribuzione alla conoscenza dei Projapygidae (Diplura). [23] 30: 41-74, ill. (S*). **Simon, F.**—Goniodes centrocerci, a new Mallophagan from grouse. [103] 11: 104-108, ill. **Walker & Ricker.**—Notes. on the Odonata from the vicinity of Cultus Lake, B. C. [4] 70: 144-151.

ORTHOPTERA.—Da Costa Lima, A.—Uma nova especie do genera Tanusiella (Pseudophyllidae). [Liv. Jub. Prof. Travassos] pp. 137-138, ill. **Hatch, M. H.**—Note on the Blattariae or Cockroaches of western Washington. [55] 14:120. **Paoli, G.**—See under Anatomy. **Rehn, J. A. G.**—A revision of the Neotropical Euthymiae (Acrid.: Cyrtacanth.). [Proc. Acad. Nat. Sci. Phila.] 90: 41-102, ill. (k*). A new procryptic Phasmid from Cuba. [Proc. Acad. Nat. Sci. Phila.] 90: 103-107, ill. **Rehn & Hebard.**—N. gen. & spp. of West Indian Acrididae, with notes on previously known spp. [1] 64: 201-226, ill. **Urquhart, F. A.**—A n. sp. of Nemobius from Ontario. [4] 70: 101-102, ill.

HEMIPTERA.—Beamer, R. H.—Some n. spp. of Leafhoppers (Cicadell.). [103] 11: 77-84, ill. **Drake, C. J.**—Mexican Tingitidae. [55] 14: 70-72. (*). **Drake & Harris.**

—Concerning Mexican Gerridae. [55] 14: 73-75. (*). **Essig, E. O.**—The ornate aphid, new to North America. [55] 14: 92-95, ill. **Hempel, A.**—Descripcao de uma nova especie de Ceroplastes (Coccidae). [105] 8: 263-264. **Hungerford, H. B.**—A third new Potamobates from Peru (Gerrid.). [103] 11: 85-87, ill. Report upon some water bugs from Mexico collected by Mr. Meldon Embury. [55] 14: 76-81, ill. (*). **Knowlton & Smith.**—The Aphid genus Pseudoeameibaphis. [6] 46: 217-222, ill. (*). **Monte, O.**—As especies do gen. Nectocader (Tingid.). [44] 51: 111-115, ill. (Sk*). **Oman, P. W.**—Revision of the Nearctic leafhoppers of the tribe Errhomenellini (Cicadell.). [50] 85: 163-180, ill. (k*). **Ruckes, H.**—Courtship & copulation in Brochymena sulcata (Pentatom.). [19] 33: 89-90. **Sampson, W. W.**—Notes on Aphids of Eucalyptus. [55] 14:91. **Silvestri, F.**—Ridescrizione del genere Termitococcus con una specie nuova delle Brasile e descrizione di un nuovo genere affine. [23] 30: 32-40, ill. **Van Duzee, E. P.**—Neotropical Gyponinae. [55] 14:128.

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On the Designation of Generotypes by Fabricius.

In the NEWS for May, 1937, pages 130-134, was published an article by Mr. René Malaise, of the Swedish Museum of Natural History at Stockholm, entitled "Fabricius as the First Designator and Original Inventor of Genotypes." Of this Mr. W. L. McAtee, of the Biological Survey, U. S. Department of Agriculture, made an adverse criticism in the NEWS for October, 1937, page 230. Mr. Malaise has replied to Mr. McAtee in a paper "On the designation of generotypes by Fabricius. A response to McAtee," in *Entomologist Tidskrift*, Stockholm, Häft 3-4, 1938, pages 99-106, with fascimiles of four different pages from Fabricius's books, 1792, 1804 and of one page from Latreille's "Tables des Genres" of 1810. This paper originally prepared for publication in the NEWS, had to be withdrawn, much to our regret. Mr. Malaise kindly writes "Free copies will be sent to all who apply for one as long as the supply lasts. The Entom Tidskrift, 1938, 3-4 will probably not be distributed before the 18. XII. 1938." Mr. Malaise may be addressed at Naturhistoriska Riksmuseum, Entomologiska Avdelningen, Stockholm 50, Sweden. His paper is in English.

OBITUARY

Science for July 22, 1938, said: Professor FERNANDO NEVERMANN, since 1909 [*sic*] professor of entomology at the National Agricultural School at San Jose, Costa Rica, was recently accidentally killed while searching for ants that had been damaging banana plants.

We are indebted to Prof. Anastasio Alfaro of San José for a clipping from the *Diario de Costa Rica* of July 5, 1938, giving details of this sad event, which we translate and abstract as follows:

Don Fernando Nevermann has lived for the past twenty years in our country and the Centro Nacional de Agricultura has benefited for some little time past from his valuable services with very satisfactory results, as Prof. Rafael A. Chavarria, Director of the establishment has assured us. A Cuban col-

league of Prof. Nevermann's arrived in Costa Rica to study certain material and the two gentlemen arranged to make a survey of the zone on the "Old Line" on which Prof Nevermann had a farm. On Thursday evening [June 30] they set out to examine the surroundings and investigate certain species which are abroad only in the darkness. To see their way they carried two small lights. In the house a son of Prof. Nevermann remained asleep. Nearby was a farm where lived a young man named Scott, very fond of hunting who, a short time before gave chase to a lion [puma]. He went to hunt this same night. The two entomologists kept their lamps lighted almost all the time. At a moment when they met to examine an anthill, Scott approached at some distance, mistook the lights for the eyes of an animal and, without waiting to be sure, fired two shots. At once a deep cry of pain arose from the two scientists wounded by the discharges. Scott ran up and the sorrowful spectacle of the tragedy met his eyes. Prof. Nevermann was seriously wounded, his companion also but less gravely. With great exertions on the part of Scott and of Prof. Nevermann's friend, the three returned to the house and arrangements were made to proceed to the hospital at Port Limon, where the two wounded men arrived the same night. The physicians exerted themselves to the utmost, but complications supervened and Prof. Nevermann died Sunday morning [July 3]. In accordance with the wishes of his relatives, his body was brought to the capital, where the funeral was held, and interred in the presence of a numerous company, the professors and students of the Centro Nacional de Agricultura and members of the German colony.

Prof. Nevermann had contributed papers on Coleoptera to *Entomologische Blätter* of Berlin (Eine neue *Statira* aus Costa Rica, 1926; Zwei neue Colydiiden aus C. R., 1930; Beobachtungen über die Lebensweise einiger Lamellicornier und einer Chrysomeliden, 1933; Berichtigung zum Cucujiidenkatalog, 1936) and to *Entomologische Rundschau,* Stuttgart (Winke zur Unterhaltung, und Präparation der Käfersammlung in den Tropen 1935), while his principal work appears to be his Beitrag zur Kenntniss der *Telephanus* (Cucujidae) in the *Stettiner Entomologische Zeitung,* 1931, 1932, embracing 119 pages and 8 plates. He collected insects of various orders in Costa Rica. He was 56 years of age at the time of his death.

EXCHANGES

This column is intended only for wants and exchanges, not for advertisements of goods for sale or services rendered. Notices not exceeding three lines free to subscribers.

These notices are continued as long as our limited space will allow; the new ones are added at the end of the column, and, only when necessary those at the top (being longest in) are discontinued.

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Have large list of Lepidoptera wants and offers. Send me yours. Carpenter, Box 1344, Hartford, Conn.

Wanted— Specimens of North American **Cephidae.** Will make determinations and exchanges for purposes of revising the group. Donald T. Ries, Department of Entomology, Cornell University, Ithaca, N. Y.

Geometers Wanted from all parts of United States and Canada, for cash or in exchange for butterflies. Noctuids or other Geometers. Edwin I. Guedet, P. O. Box 305, Napa, California.

Mr. Robert "Colegio de la Salle, Vedado, Habana, Cuba," offers Coleoptera, Lepidoptera, Land and Sea Shells, Bird Skins, Botanical Specimens, Cuban Cactus and cleaned "Diatom" Material.

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